

0053



Canyon Fuel  
Company, LLC.  
Skyline Mine

A Subsidiary of Arch Western Bituminous Group, LLC.

**COPY**

Gregg Galecki, Environmental Eng.  
HCR 35, Box 380  
Helper, UT 84526  
(435) 448-2636 - Office  
(435) 448-2632 - Fax

September 10, 2009

Mr. James D. Smith  
Permit Supervisor  
Utah Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
Salt Lake City, Utah 84114-5801

RE: Response to Task #3356 - Application to Reduce Water Monitoring requirements at  
Selected Water Monitoring Sites, Canyon Fuel Company, LLC, Skyline Mine, C/007/005

Dear Mr. Smith:

Please find enclosed with this letter Skyline Mine's application to reduce water monitoring commitments on various water monitoring sites within the permit area. This submittal includes one (1) redline-strikeout version for Ms. April Abate's review, and eight (8) clean copies of modified text, and associated plates.

Plates 2.3.6-1 and 2.3.6-2 have been modified to denote both current and historic monitoring sites. Tables 2.3.7-1 and 2.3.7-3 have been modified to reflect the reduction in water monitoring sites, and to add Oil and Grease analysis to site CS-11 to cover the analysis from CS-4. A sentence in Section 2.4 - Surface Water Hydrology was added to reflect the change in spacing of the NL sites. Concerning abandonment of Well 99-28-1, Section 2.2.11 of the currently approved M&RP commits to well abandonment per State regulations by a licensed driller. The State has been contacted, and abandonment is scheduled for late September 2009. The abandonment log will be filed with the Division of Water Rights.

Also attached to this cover letter are completed C1 and C2 forms.

If you have any questions regarding this information, please give me a call at (435) 448-2636.

Sincerely:

Gregg A. Galecki  
Canyon Fuel Company, LLC.  
Environmental Engineer - Skyline Mines

Enclosures

File in:

☐ Confidential  
☐ Shelf  
☒ Expandable

Refer to Record No. 0053 Date 09/10/2009  
In C 0070005 2007 Incoming  
For additional information

**RECEIVED**  
**SEP 14 2009**  
**DIV. OF OIL, GAS & MINING**

# APPLICATION FOR COAL PERMIT PROCESSING

Permit Change ☒ New Permit ☐ Renewal ☐ Exploration ☐ Bond Release ☐ Transfer ☐

**COPY**

Permittee: Canyon Fuel Company, LLC

Mine: Skyline Mine

Permit Number: C/007/005

Title: Reduced Water Monitoring

Description, Include reason for application and timing required to implement:

Reduced Water monitoring requirements at selected water monitoring sitesd. Response to Task #3356.

**Instructions:** If you answer yes to any of the first eight (gray) questions, this application may require Public Notice publication.

- ☐ Yes ☒ No 1. Change in the size of the Permit Area? Acres: \_\_\_\_\_ Disturbed Area: \_\_\_\_\_ ☐ increase ☐ decrease.
- ☐ Yes ☒ No 2. Is the application submitted as a result of a Division Order? DO# \_\_\_\_\_
- ☐ Yes ☒ No 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area?
- ☐ Yes ☒ No 4. Does the application include operations in hydrologic basins other than as currently approved?
- ☐ Yes ☒ No 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond?
- ☐ Yes ☒ No 6. Does the application require or include public notice publication?
- ☐ Yes ☒ No 7. Does the application require or include ownership, control, right-of-entry, or compliance information?
- ☐ Yes ☒ No 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
- ☐ Yes ☒ No 9. Is the application submitted as a result of a Violation? NOV # \_\_\_\_\_
- ☐ Yes ☒ No 10. Is the application submitted as a result of other laws or regulations or policies?  
Explain: \_\_\_\_\_
- ☐ Yes ☒ No 11. Does the application affect the surface landowner or change the post mining land use?
- ☐ Yes ☒ No 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2)
- ☐ Yes ☒ No 13. Does the application require or include collection and reporting of any baseline information?
- ☐ Yes ☒ No 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
- ☐ Yes ☒ No 15. Does the application require or include soil removal, storage or placement?
- ☐ Yes ☒ No 16. Does the application require or include vegetation monitoring, removal or revegetation activities?
- ☐ Yes ☒ No 17. Does the application require or include construction, modification, or removal of surface facilities?
- ☒ Yes ☐ No 18. Does the application require or include water monitoring, sediment or drainage control measures?
- ☒ Yes ☐ No 19. Does the application require or include certified designs, maps or calculation?
- ☐ Yes ☒ No 20. Does the application require or include subsidence control or monitoring?
- ☐ Yes ☒ No 21. Have reclamation costs for bonding been provided?
- ☒ Yes ☐ No 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream?
- ☐ Yes ☒ No 23. Does the application affect permits issued by other agencies or permits issued to other entities?

Please attach four (4) review copies of the application. If the mine is on or adjacent to Forest Service land please submit five (5) copies, thank you. (These numbers include a copy for the Price Field Office)

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

Wesley K Sorensen  
Print Name

Wesley K Sorensen  
Sign Name, Position, Date  
General Manager 9/10/09

Subscribed and sworn to before me this 10<sup>th</sup> day of Sept, 2009

Kathleen Atwood  
Notary Public

My commission Expires: 11-12-2011 } ss:  
Attest: State of Utah }  
County of Carbon



For Office Use Only:

Assigned Tracking  
Number:

Received by Oil, Gas & Mining

**RECEIVED**  
SEP 14 2009  
DIV. OF OIL, GAS & MINING

# Plan COPY

**Title:** Reduced Water Monitoring at Selected Sites

Form DOGM - C2 (Revised March 12, 2002)



Table 2.3.7-1  
Comprehensive Water Quality Analytical Schedule  
(Surface and Ground Water Stations)

Sample Site	1st Quarter						2nd <sup>2</sup> / 3rd <sup>3</sup> / 4th Quarters												
	Lab Analysis <sup>a3</sup>	Field parameters only <sup>*1</sup>	Monthly Flow	Dissolved Oxygen	TDS, TSS, T-P	O & G	Lab Analysis <sup>a3</sup>	Qtrly Field parameters* only <sup>1</sup>	Quarterly Flow	Monthly Flow	Monthly Seasonal Flow	Quarterly Water Level Only	Dissolved Oxygen	TDS, TSS, T-P	O & G	Carbon 14	Tritium	Deuterium	Oxygen 18
Streams																			
CS-3							X								X				
CS-4 (DELETE)							X								X				
CS-6	X			X			X					X							
CS-7 (F-5)								X											
CS-8								X											
CS-9							X												
CS-10								X											
CS-11							X								X				
CS-12	X						X												
CS-13	X						X												
CS-14	X						X												
CS-16								X											
CS-17								X											
CS-18								X											
CS-19							X												
CS-20							X												
CS-21							X												
CS-22									X										
CS-23									X										
MD-1			X		X					X				X					
SRD-1			X							X									
F-9 (DELETE)								X			X								
F-10								X											
UP&L-10							X												
VC-6	X			X		X	X					X		X					
VC-9	X			X		X	X					X		X					
VC-10		X						X											
VC-11									X										
VC-12									X										
NL-1 through NL-42 (See Section 2.4.4)											X								

Table 2.3.7-1  
Comprehensive Water Quality Analytical Schedule  
(Surface and Ground Water Stations)  
(continued)

Sample Site	1st Quarter						2nd <sup>2</sup> / 3rd <sup>3</sup> / 4th Quarters												
	Lab Analysis <sup>a</sup>	Field parameters only <sup>a1</sup>	Monthly Flow	Dissolved Oxygen	TDS, TSS, T-P	O & G	Lab Analysis <sup>a</sup>	Qtrly Field parameters* only <sup>1</sup>	Quarterly Flow	Monthly Flow	Monthly Seasonal Flow	Quarterly Water Level Only	Dissolved Oxygen	TDS, TSS, T-P	O & G	Carbon 14	Tritium	Deuterium	Oxygen 18
Streams (cont.)																			
WRDS #1							X								X			X	
WRDS #2							X								X			X	
WRDS #3							X								X				
WRDS #4							X								X				
EL-1																	X		
EL-2																	X		
Springs																			
S10-1							X												
S12-1							X												
S13-2								X											
S13-7							X												
S14-4								X											
S15-3								X									X		
S17-2							X												
S22-5								X											
S22-11								X											
S23-4								X											
S24-1 Sulfur Spring								X									X		
S24-12								X											
S26-13								X											
S34-12								X											
S35-8								X											
S36-12								X											
2-413								X									X		
3-290								X											
8-253																	X		
WQ1-1								X											
WQ1-39							X												
WQ3-6							X												
WQ3-26							X												
WQ3-41							X												
WQ3-43							X												
WQ4-12							X												



Table 2.3.7-1  
Comprehensive Water Quality Analytical Schedule  
(Surface and Ground Water Stations)  
(continued)

Sample Site	1st Quarter					2nd <sup>2</sup> / 3rd <sup>3</sup> / 4th Quarters													
	Lab Analysis <sup>a</sup>	Field parameters only <sup>a1</sup>	Monthly Flow	Dissolved Oxygen	TDS, TSS, T-P	O & G	Lab Analysis <sup>a2</sup>	Qtrly Field parameters* only <sup>1</sup>	Quarterly Flow	Monthly Flow	Monthly Seasonal Flow	Quarterly Water Level Only	Dissolved Oxygen	TDS, TSS, T-P	O & G	Carbon 14	Tritium	Deuterium	Oxygen 18
Wells																			
JC-1			X					X		X				X		X	X	X	X
JC-3			X					X		X				X					
ELD-1			X							X									
W79-10-1B												X							
W79-14-2A												X							
W79-26-1												X							
W79-35-1A												X							
W79-35-1B												X							
W2-1(98-2-1)												X							
W20-4-1												X							
W20-4-2												X							
W99-4-1												X							
W99-21-1												X							
W99-28-1 (DELETE)												X							
W20-28-1												X							
91-26-1												X							
91-35-1												X							
92-91-03							X												

\* Field Measurements and Laboratory Analyses are defined in Table 2.3.7-2

<sup>a</sup>Field parameters will be taken in conjunction with samples collected for Lab Analyses

<sup>1</sup>Sites with at least two (2) years of laboratory analysis data will be sampled once every five (5) years for the currently approved laboratory parameters in Table 2.3.7-2 beginning in 2010. If field parameter monitoring indicates any trending changes, regular laboratory analysis may be resumed until trend is adequately characterized.

<sup>2</sup>2nd Quarter sampling may extend to July 15 in years when spring snow conditions do not allow access before June.

<sup>3</sup>Baseline Lab Analysis will be conducted every five (5) years beginning in 2010 in the 3rd quarter. (ie. Years 2010, 2015, 2020, etc.)

Table 2.3.7-1  
Comprehensive Water Quality Analytical Schedule  
(Surface and Ground Water Stations)

Sample Site	1st Quarter						2nd <sup>2</sup> / 3rd <sup>3</sup> / 4th Quarters												
	Lab Analysis <sup>a</sup>	Field parameters only <sup>*1</sup>	Monthly Flow	Dissolved Oxygen	TDS, TSS, T-P	O & G	Lab Analysis <sup>a</sup>	Qtrly Field parameters* only <sup>1</sup>	Quarterly Flow	Monthly Flow	Monthly Seasonal Flow	Quarterly Water Level Only	Dissolved Oxygen	TDS, TSS, T-P	O & G	Carbon 14	Tritium	Deuterium	Oxygen 18
Streams																			
CS-3							X								X				
CS-6	X			X			X					X							
CS-7 (F-5)								X											
CS-8								X											
CS-9							X												
CS-10								X											
CS-11							X							X					
CS-12	X						X												
CS-13	X						X												
CS-14	X						X												
CS-16								X											
CS-17								X											
CS-18								X											
CS-19							X												
CS-20							X												
CS-21							X												
CS-22									X										
CS-23									X										
MD-1			X		X					X				X					
SRD-1			X							X									
F-10								X											
UP&L-10							X												
VC-6	X			X		X	X					X		X					
VC-9	X			X		X	X					X		X					
VC-10		X						X											
VC-11									X										
VC-12									X										
NL-1 through NL-42 (See Section 2.4.4)											X								

Table 2.3.7-1  
Comprehensive Water Quality Analytical Schedule  
(Surface and Ground Water Stations)  
(continued)

Sample Site	1st Quarter							2nd <sup>2</sup> / 3rd <sup>3</sup> / 4th Quarters												
	Lab Analysis <sup>*a</sup>	Field parameters only <sup>*1</sup>	Monthly Flow	Dissolved Oxygen	TDS, TSS, T-P	O & G		Lab Analysis <sup>*a</sup>	Qtrly Field parameters* only <sup>1</sup>	Quarterly Flow	Monthly Flow	Monthly Seasonal Flow	Quarterly Water Level Only	Dissolved Oxygen	TDS, TSS, T-P	O & G	Carbon 14	Tritium	Deuterium	Oxygen 18
Streams (cont.)																				
WRDS #1								X								X				
WRDS #2								X								X				
WRDS #3								X								X				
WRDS #4								X								X				
EL-1																		X		
EL-2																		X		
Springs																				
S10-1								X												
S12-1								X												
S13-2									X											
S13-7								X												
S14-4									X											
S15-3									X									X		
S17-2								X												
S22-5									X											
S22-11									X											
S23-4									X											
S24-1 Sulfur Spring									X									X		
S24-12									X											
S26-13									X											
S34-12									X											
S35-8									X											
S36-12									X											
2-413									X									X		
3-290									X											
8-253																		X		
WQ1-1									X											
WQ1-39								X												
WQ3-6								X												
WQ3-26								X												
WQ3-41								X												
WQ3-43								X												
WQ4-12								X												



Table 2.3.7-1  
Comprehensive Water Quality Analytical Schedule  
(Surface and Ground Water Stations)  
(continued)

Sample Site	1st Quarter							2nd <sup>2</sup> / 3rd <sup>3</sup> / 4th Quarters												
	Lab Analysis <sup>a2</sup>	Field parameters only <sup>a1</sup>	Monthly Flow	Dissolved Oxygen	TDS,TSS, T-P	O & G		Lab Analysis <sup>a2</sup>	Qtrly Field parameters* only <sup>1</sup>	Quarterly Flow	Monthly Flow	Monthly Seasonal Flow	Quarterly Water Level Only	Dissolved Oxygen	TDS,TSS, T-P	O & G	Carbon 14	Tritium	Deuterium	Oxygen 18
Wells																				
JC-1			X					X		X				X			X	X	X	X
JC-3			X					X		X				X						
ELD-1			X							X										
W79-10-1B												X								
W79-14-2A												X								
W79-26-1												X								
W79-35-1A												X								
W79-35-1B												X								
W2-1(98-2-1)												X								
W20-4-1												X								
W20-4-2												X								
W99-4-1												X								
W99-21-1												X								
W20-28-1												X								
91-26-1												X								
91-35-1												X								
92-91-03								X												

\* Field Measurements and Laboratory Analyses are defined in Table 2.3.7-2

<sup>a2</sup>Field parameters will be taken in conjunction with samples collected for Lab Analyses

<sup>1</sup>Sites with at least two (2) years of laboratory analysis data will be sampled once every five (5) years for the currently approved laboratory parameters in Table 2.3.7-2 beginning in 2010. If field parameter monitoring indicates any trending changes, regular laboratory analysis may be resumed until trend is adequately characterized.

<sup>2</sup>2nd Quarter sampling may extend to July 15 in years when spring snow conditions do not allow access before June.

<sup>3</sup>Baseline Lab Analysis will be conducted every five (5) years beginning in 2010 in the 3rd quarter. (ie. Years 2010, 2015, 2020, etc.)

TABLE 2.3.7-3  
MONITORING STATION IDENTIFICATION

ECCLES CANYON/MUD CREEK DRAINAGES

STREAM STATIONS - ~~12~~22 Stations

<del>CS-1</del>	CS-3	<del>CS-4</del>	CS-6	CS-9	CS-11	<del>CS-15</del>
VC-6	VC-9	VC-10	<del>MC-1</del>	<del>MC-2</del>	<del>MC-3</del>	<del>MC-4</del>
<del>MC-5</del>	<del>MC-6</del>	CS-19	CS-20	CS-21	VC-11	VC-12

MINE DISCHARGE STATIONS - 4 Stations

CS-12 (Mine #3)      CS-14 (Mine #1)      MD-1 (Composite CS-12 & CS-14)  
SRD-1 (Total Mine Site Discharge to Eccles Creek/Scofield Reservoir)\*

FRENCH DRAIN STATIONS - 1 Station

CS-13

HUNTINGTON CANYON

STREAM STATIONS - 12 Stations

CS-7 (F-5)	CS-8	<del>CS-1</del>	CS-16	CS-17	CS-18	CS-22
CS-23	<del>UPL-3*</del>	UPL-10	<del>F-9</del> CS-10	F-10	EL-1	EL-2

\*Discontinued Spring, 1989

WASTE ROCK DISPOSAL SITE

STREAM STATIONS - 4 Stations

WRDS #1   WRDS #2   WRDS #3   WRDS #4

GROUNDWATER STATIONS

SPRINGS - 26 Stations

S10-1	S12-1	S13-2	S13-7	S14-4	S15-3	S17-2
S22-5	S22-11	S23-4	S24-1 Sulfur	S24-12	S26-13	S34-12
S35-8	S36-12	2-413	3-290	WQ1-39	WQ3-6	WQ3-26
WQ3-41	WQ3-43	WQ4-12	8-253	WQ1-1		

WELLS (MONITORING) - ~~17~~49 Well Stations

W79-10-1B	W79-14-2A	W79-26-1	W79-35-1A	W79-35-1B
92-91-03	W2-1(98-2-1)	W20-4-1	W20-4-2	W99-4-1
W99-21-1	<del>W99-28-1</del>	W20- 28-1	JC-1	JC-3
	ELD-1 (Total of JC-1 and JC-3)*	91-26-1	91-35-1	

WELLS, CULINARY -Referenced but not monitored

W13-1	W13-2	W17-1	W17-3	W24-1
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NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES)

001 Portal Area   002 Loadout Area   003 Waste Rock Area   JC-3 James Canyon

\* Sites are monitored for total flow only and the results are reported to the Division on a monthly basis.

TABLE 2.3.7-3  
MONITORING STATION IDENTIFICATION  
ECCLES CANYON/MUD CREEK DRAINAGES

STREAM STATIONS - 12 Stations

CS-3	CS-6	CS-9	CS-11	CS-19	CS-20
CS-21	VC-6	VC-9	VC-10	VC-11	VC-12

MINE DISCHARGE STATIONS - 4 Stations

CS-12 (Mine #3)	CS-14 (Mine #1)	MD-1 (Composite CS-12 & CS-14)
SRD-1 (Total Mine Site Discharge to Eccles Creek/Scofield Reservoir)*		

FRENCH DRAIN STATIONS - 1 Station

CS-13

HUNTINGTON CANYON

STREAM STATIONS - 12 Stations

CS-7 (F-5)	CS-8	CS-10	CS-16	CS-17	CS-18
CS-22	CS-23	UPL-10	F-10	EL-1	EL-2

WASTE ROCK DISPOSAL SITE

STREAM STATIONS - 4 Stations

WRDS #1   WRDS #2   WRDS #3   WRDS #4

GROUNDWATER STATIONS

SPRINGS - 26 Stations

S10-1	S12-1	S13-2	S13-7	S14-4	S15-3	S17-2
S22-5	S22-11	S23-4	S24-1 Sulfur	S24-12	S26-13	S34-12
S35-8	S36-12	2-413	3-290	WQ1-39	WQ3-6	WQ3-26
WQ3-41	WQ3-43	WQ4-12	8-253	WQ1-1		

WELLS (MONITORING) - 17 Well Stations

W79-10-1B	W79-14-2A	W79-26-1	W79-35-1A	W79-35-1B
92-91-03	W2-1(98-2-1)	W20-4-1	W20-4-2	W99-4-1
W99-21-1	W20- 28-1	JC-1	JC-3	91-26-1
91-35-1	ELD-1 (Total of JC-1 and JC-3)*			

WELLS, CULINARY -Referenced but not monitored

W13-1	W13-2	W17-1	W17-3	W24-1
-------	-------	-------	-------	-------

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES)

001 Portal Area   002 Loadout Area   003 Waste Rock Area   JC-3 James Canyon

\* Sites are monitored for total flow only and the results are reported to the Division on a monthly basis.



accessible earlier than June or later than October, the mine will monitor the sites. The results of the monitoring will be reported with the other required monitoring data. The purpose of this monitoring is to determine the effects, if any, on the stretches of perennial streams in the Winter Quarters Creek and Woods Canyon Creek drainage that will be subsided due to mining. Monitoring points, in perennial reaches running perpendicular to the longwall panels, are positioned above the gate-roads and center of each panel. Longwall panels are approximately 850-feet wide, creating a flow-monitoring spacing of approximately 425-feet. Monitoring points in perennial reaches running parallel to the longwall panels are spaced at approximately 850-feet. Since monitoring is dependent on the timing of mining, monitoring points will be added and dropped as mining advances. As mining advances through the perennial sections of the drainage, and the monitoring indicates no affects to flow, the Permittee may modify the spacing of the monitoring points. This monitoring will also help indicate if mitigation is required for loss of surface or ground water and, subsequently, habitat associated with the water. Spacing of monitoring sites was reduced to one (1) site per approximately 850-feet in 2009.

Skyline has conducted field studies to determine the location of the perennial portions of both Winter Quarters and Woods Canyon Creeks, though no mining is currently planned within the next five years in the Woods Canyon drainage. The perennial nature of the streams were determined using a variety of parameters including vegetation and surface flow monitoring. Field studies were initiated and completed in October and November 2002 and October 2003. Copies of the studies are included in Volume A-1 Hydrology Section. The studies will be used by the Forest in their environmental assessment of the potential effects of undermining Winter Quarters and Wood Canyon Creeks.

Sampling will continue according to Tables 2.3.7-1, 2.3.7-2, and 2.3.7-3 as approved at all surface water stations throughout the post-mining period and until the reclamation effort is determined successful by the

accessible earlier than June or later than October, the mine will monitor the sites. The results of the monitoring will be reported with the other required monitoring data. The purpose of this monitoring is to determine the effects, if any, on the stretches of perennial streams in the Winter Quarters Creek and Woods Canyon Creek drainage that will be subsided due to mining. Monitoring points, in perennial reaches running perpendicular to the longwall panels, are positioned above the gate-roads and center of each panel. Longwall panels are approximately 850-feet wide, creating a flow-monitoring spacing of approximately 425-feet. Monitoring points in perennial reaches running parallel to the longwall panels are spaced at approximately 850-feet. Since monitoring is dependent on the timing of mining, monitoring points will be added and dropped as mining advances. As mining advances through the perennial sections of the drainage, and the monitoring indicates no affects to flow, the Permittee may modify the spacing of the monitoring points. This monitoring will also help indicate if mitigation is required for loss of surface or ground water and, subsequently, habitat associated with the water. Spacing of monitoring sites was reduced to one (1) site per approximately 850-feet in 2009.

Skyline has conducted field studies to determine the location of the perennial portions of both Winter Quarters and Woods Canyon Creeks, though no mining is currently planned within the next five years in the Woods Canyon drainage. The perennial nature of the streams were determined using a variety of parameters including vegetation and surface flow monitoring. Field studies were initiated and completed in October and November 2002 and October 2003. Copies of the studies are included in Volume A-1 Hydrology Section. The studies will be used by the Forest in their environmental assessment of the potential effects of undermining Winter Quarters and Wood Canyon Creeks.

Sampling will continue according to Tables 2.3.7-1, 2.3.7-2, and 2.3.7-3 as approved at all surface water stations throughout the post-mining period and until the reclamation effort is determined successful by the